NNN NNN NNN	NNN NNN NNN	2222222222 22222222222 22222222222	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	
NNN	NNN	CCC		PP
NNN	NNN	CCC	PPP P	PP
NNN	NNN	CCC		PP
NNNNNN	NNN	ČČČ		PP
NNNNNN	NNN	CCC		PP
NNNNNN	NNN	CCC	PPP P	PP
NNN NN		CCC	PPPPPPPPPPPP	
NNN NN	N NNN	CCC	PPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPPP	
NNN NN	N NNN	CCC	PPPPPPPPPPPP	
NNN	NNNNNN	CCC	PPP	
NNN	NNNNNN	CCC	PPP	
NNN	NNNNNN	CCC	PPP	
NNN	NNN	CCC	PPP	
NNN	NNN	CCC	PPP	
NNN	NNN	CCC	PPP	
NNN	NNN	2222222222	PPP	
NNN	NNN	2222222222	PPP	
NNN	MMM	CCCCCCCCCCC	DDD	

NN NN NN NN NN NN NN NN NN NN NN	MM PMM PMM PMM PMM PMM PMM PMM PMM PMM	AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA		88888888 88888888 88 88 88 88 88 88 88 88 888888	RRRRRRRR RRRRRRRR RR RR RR RR RR RR RRRRRR
		\$			

Version: 'V04-000'

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NMAHEAD.B32

1++

++

Define \$EQULST macro to make library from the NMALIBRY.B32 file This source is taken from the following source:

UTLDEF.B32 - UTILITY DEFINITION MACROS FOR BLISS PROCESSING OF STARLET DEFINITION MACROS.

MACRO TO GENERATE EQULST CONSTRUCTS.

MACRO

SEQUEST(P.G.I.S)[A]=

XNAME(P.GETIST\_A) =

XIF NUL2ND A

XTHEN (I) + XCOUNT\*(S) ! ASSUMES I, S ALWAYS GENERATED BY CONVERSION PROGRAM

XELSE GET2ND A

XFI X,

GET1ST\_(A,B)=

GET2ND\_(A,B)=

B X, ! KNOWN NON-NULL

```
literal NMASM_OPT_ENT = 7;

literal NMASM_OPT_CLE = 64;

literal NMASM_OPT_PER = 128;

literal NMASM_OPT_INF = 112;

literal NMASC_OPINF_SUM = 0;

literal NMASC_OPINF_STA = 1;

literal NMASC_OPINF_CHA = 2;

literal NMASC_OPINF_COU = 3;

literal NMASC_OPINF_EVE = 4;
                                                  test
```

! \*\*\* MODULE SNMADEF \*\*\*

literal NMASC\_OBJ\_NIC = 19:

literal NMASC\_FNC\_LOA = 15; literal NMASC\_FNC\_DUM = 16; literal NMASC\_FNC\_TRI = 17; literal NMASC\_FNC\_TES = 18; literal NMASC\_FNC\_CHA = 19; literal NMASC\_FNC\_REA = 20; literal NMASC\_FNC\_ZER = 21; literal NMASC\_FNC\_SYS = 22;

Object type

Option byte

Function codes

0078

0079

0080 0081

0082

0084

0085 0086 0087

0088

0089

0095

0096

0097

0098

0099 0100

0101

0102 0104

0105

0106

0108

0110

0111

0112

0114

0116

0118

0119 0120

```
literal NMASM_OPT_ACC = 128;
literal NMASM_OPT_REA = 128;
literal NMASC_SYS_RST = 1;
literal NMASC_SYS_RSX = 2;
literal NMASC_SYS_TOP = 3;
literal NMASC_SYS_VMS = 4;
literal NMASC_SYS_RT = 5;
                                                                                                                                                                                                                                                             RT-11
```

Entity types. This numbering scheme must be used in non-system-specific NICE messages. (See below for conflicting system-specific entities).

```
literal NMASC_ENT_NOD = 0:
literal NMASC_ENT_LIN = 1:
literal NMASC_ENT_LOG = 2:
literal NMASC_ENT_CIR = 3:
literal NMASC_ENT_MOD = 4:
literal NMASC_ENT_ARE = 5:
                                                                                                                                              Node
                                                                                                                                              Line
                                                                                                                                              Logging
                                                                                                                                              Circuit
                                                                                                                                              Module
                                                                                                                                              Area
```

System-specific (function 22) entity types. This numbering scheme

```
for objects must be used in any entity type in system-specific NICE
                               messages.
                        literal NMASC_SENT_ALI = 3:
literal NMASC_SENT_OBJ = 4:
literal NMASC_SENT_PRO = 5:
literal NMASC_SENT_SYS = 6:
literal NMASC_SENT_LNK = 7:
literal NMASC_SENT_LNK = 7:
literal NMASC_ENT_ADJ = -4:
literal NMASC_ENT_ACT = -2:
literal NMASC_ENT_ACT = -2:
literal NMASC_ENT_ADD = 0:
literal NMASC_ENT_ADD = 0:
literal NMASC_ENT_ALL = -3:
literal NMASC_ENT_ALL = -3:
                                                                                                                  Alias
                                                                                                                  Object
                                                                                                                  Process
                                                                                                                  System
                                                                                                                  Adjacent
Active
                                                                                                                  Known
                                                                                                                  Node address
                                                                                                                  ALL
                                                                                                                Loop
                               Logging sink types
                         literal NMA$C_SNK_CON = 1;
literal NMA$C_SNK_FIL = 2;
literal NMA$C_SNK_MON = 3;
                                                                                                                  Console
                                                                                                           File
0141
0142
0143
0144
                                                                                                            Monitor
                                Counter data type values
                         literal NMASM_CNT_TYP = 4095;

literal NMASM_CNT_MAP = 4096;

literal NMASM_CNT_WID = 24576;

literal NMASM_CNT_COU = 32768;

literal NMASM_CNT_WIL = 8192;

literal NMASM_CNT_WIH = 16384;

literal NMASS_NMADEF = 2;

macro NMASV_OPT_ENT = 0,0,3,0 %;

literal NMASS_OPT_ENT = 3;
 0145
0146
0148
0149
0150
0151
0152
0153
0154
0156
0157
0158
0159
                                                                                                            ! Entity type
                                      change parameter
                         macro NMA$V_OPT_CLE = 0.6.1.0 %;
macro NMA$V_OPT_PER = 0.7.1.0 %;
                                                                                                                  Clear parameter
                                                                                                            ! Permanent parameters
 0160
                                      common to change parameter or read information
 0161
 0162
                                      read information
 0164
                         macro NMA$V_OPT_INF = 0.4.3.0 %;
literal NMA$S_OPT_INF = 3;
macro NMA$V_OPT_ACC = 0.7.1.0 %;
                                                                                                            ! Information type mask
 0166
0167
                                                                                                             ! Access control included
0168
0169
0170
0171
0172
0173
0174
0175
0176
0177
                                      zero
                                                                                                            ! Read and zero
                          macro NMASV_OPT_REA = 0,7,1,0 %;
                                System types
                                                                                                           ! Executor indicator flag for response messages
                          macro NMA$V_ENT_EXE = 0,7,1,0 %;
                           ! Entity identification format types
```

! Maximum fields within coded multiple

Type mask Bitmapped indicator

Width field mask Counter indicator Width field low bit

Width field high bit

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                                                                                                                                                                                                                                                                                                                                 macro NMASV CNT TYP = 0.0,12.0 %;
literal NMASS CNT TYP = 12;
macro NMASV CNT MAP = 0.12.1.0 %;
macro NMASV CNT WID = 0.13.2.0 %;
literal NMASS CNT WID = 2;
macro NMASV CNT COU = 0.15.1.0 %;
macro NMASV CNT WIL = 0.13.1.0 %;
macro NMASV CNT WIL = 0.14.1.0 %;
                                                                                                                                                                                                                                                                                                                                                                                                                                    Node area and address extraction
                                                                                                                                                                                                                                                                                                                              literal NMASM PTY TYP = 32767;
literal NMASC PTY MAX = 15;
literal NMASM PTY CLE = 63;
literal NMASM PTY MUL = 64;
literal NMASM PTY COD = 128;
literal NMASM PTY CMU = 192;
literal NMASM PTY NLE = 15;
literal NMASM PTY NLE = 15;
literal NMASM PTY NTY = 48;
literal NMASM PTY ASC = 64;
literal NMASC NTY DU = 0;
literal NMASC NTY DS = 1;
literal NMASC NTY D = 3;
NLE values (length of number):
literal NMASC NLE IMAGE = 0;
literal NMASC NLE IMAGE = 0;
literal NMASC NLE BYTE = 1;
literal NMASC NLE LONG = 4;
literal NMASC NLE LONG = 4;
literal NMASC NLE LONG = 4;
literal NMASC NLE QUAD = 8;
```

Unsigned decimal Signed decimal Hexidecimal Octal

Image field (byte-counted) Byte Word Longword

## Define standard values for the DATA TYPE byte

```
literal NMASC PTY AI = 64:

literal NMASC PTY HI = 32:

literal NMASC PTY H1 = 33:

literal NMASC PTY H2 = 34:

literal NMASC PTY H4 = 36:

literal NMASC PTY DU1 = 1:

literal NMASC PTY DU2 = 2:

literal NMASC PTY CD1 = 129:

literal NMASC PTY CM2 = 194:

literal NMASC PTY CM3 = 195:

literal NMASC PTY CM4 = 196:

literal NMASC PTY CM5 = 197;
```

ASCII image (ASC=1)
Hex image (NTY=H, NLE=IMAGE)
Hex byte (NTY=H, NLE=BYTE)
Hex word (NTY=H, NLE=WORD)
Hex byte (NTY=H, NLE=LONG)
Decimal unsigned byte (NTY=DU,NLE=BYTE)
Decimal unsigned word (NTY=DU,NLE=WORD)
Coded decimal byte (COD=1, 1 byte)
Coded multiple, 2 fields
Coded multiple, 3 fields
Coded multiple, 4 fields
Coded multiple, 5 fields

## Circuit parameters

```
literal NMASC_PCCI_STA = 0;

Literal NMASC_PCCI_SUB = 1;

Literal NMASC_PCCI_SER = 100;

Literal NMASC_PCCI_LCT = 110;

Literal NMASC_PCCI_SPY = 120;

Literal NMASC_PCCI_SSB = 121;

Literal NMASC_PCCI_CNO = 200;

Literal NMASC_PCCI_COB = 201;
```

State (coded byte of NMA\$C\_STATE\_)
Substate (coded byte of NMA\$C\_LINSS\_)
Service (coded byte of NMA\$C\_LINSS\_)
Counter timer (word) Service physical address (NI address)
Service substate (coded byte of NMASC\_LINSS\_) Connected node Connected object

```
G 7
15-Sep-1984 23:06:17 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:49:02 S255$DUA28:[NCP.OBJ]NMADEF.R32;1
                               literal NMASC PCCI LOO = 400;
literal NMASC PCCI DRT = 801;
literal NMASC PCCI DRT = 801;
literal NMASC PCCI BLO = 810;
literal NMASC PCCI BLO = 900;
literal NMASC PCCI BLO = 901;
literal NMASC PCCI MRT = 901;
literal NMASC PCCI MRT = 901;
literal NMASC PCCI HET = 906;
literal NMASC PCCI BLK = 910;
literal NMASC PCCI MRC = 920;
literal NMASC PCCI MRC = 920;
literal NMASC PCCI NUM = 930;
literal NMASC PCCI NUM = 930;
literal NMASC PCCI DUSR = 1000;
literal NMASC PCCI PDL = 1010;
literal NMASC PCCI DUSR = 1001;
literal NMASC PCCI DWN = 1100;
literal NMASC PCCI DWN = 1120;
literal NMASC PCCI DTE = 1120;
literal NMASC PCCI DTE = 1120;
literal NMASC PCCI DTE = 1120;
literal NMASC PCCI TRI = 1140;
literal NMASC PCCI MBL = 1122;
literal NMASC PCCI MBH = 1123;
literal NMASC PCCI MBH = 1141;
literal NMASC PCCI TRI = 1143;
literal NMASC PCCI TRI = 1146;
location NMASC PCCI MRB = 1145;
literal NMASC PCCI MRB = 1150;
literal NMASC PCCI ACB = 1150;
literal NMASC PCCI IAB = 1157;
literal NMASC PCCI DYB = 1157;
literal NMASC PCCI DYH = 1158;
Loopback name (ascic)
Adjacent node
                                                                                                                                                       Designated router on NI
                                                                                                                                                       Block size (word)
Cost (byte)
                                                                                                                                                       Maximum routers on NI (byte)
Router priority on NI (byte)
                                                                                                                                                       Hello timer (word)
                                                                                                                                                       Listen timer (word)
                                                                                                                                                      Blocking (coded byte of NMA$C_CIRBLK_)
Maximum recalls (byte)
Recall timer (word)
Number (ascic)
                                                                                                                                                      User entity identification
                                                                                                                                                       Polling state (coded byte of NMASC_CIRPST_)
                                                                                                                                                      Polling substate (coded byte)
Owner entity identification
                                                                                                                                                       Line (ascic)
                                                                                                                                                      Usage (coded byte of NMA$C_CIRUS_)
Type (coded byte of NMA$C_CIRTY_)
DIE (ascic)
                                                                                                                                                      Channel (word)
Maximum data (word)
Maximum window (byte)
                                                                                                                                                       Tributary (byte)
Babble timer (word)
                                                                                                                                                       Transmit timer (word)
                                                                                                                                                       Retransmit timer (word)
                                                                                                                                                       Maximum receive buffers (coded byte)
0264
0265
                                                                                                                                                       Maximum transmits (byte)
0266
0267
                                                                                                                                                       Active base (byte)
                                                                                                                                                      Active increment (byte)
0268
0269
0270
                000
                                                                                                                                                       Inactive base (byte)
                                                                                                                                                       Inactive increment (byte)
                                                                                                                                               ! Inactive threshold (byte)
0271
0272
0273
0274
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0276
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0279
0281
0283
0284
0285
                                                                                                                                                      Dying base (byte)
                                                                                                                                              Dying increment (byte)
Dying threshold (byte)
                                                                                                                                               ! Dead threshold (byte)
                                  ! RSX-specific circuit parameters
                                 literal NMA$C_PCCI_RSX_MAC = 2320:
literal NMA$C_PCCI_RSX_LOG = 2380:
literal NMA$C_PCCI_RSX_DLG = 2385:
literal NMA$C_PCCI_RSX_ACT = 2390:
                                                                                                                                                      Multipoint active ratio
                                                                                                                                                      Logical name
                                                                                                                                                       Designated name
                                                                                                                                                       Actual name
                                         VMS-specific circuit NICE parameters [2700 - 2799]
                                  literal NMASC_PCCI_VER = 2700;
literal NMASC_PCCI_XPT = 2720;
                                                                                                                                              ! Verification (coded byte of NMASC_CIRVE_)
! Transport type (coded byte of NMASC_CIRXPT_)
                                         VMS-specific datalink only circuit parameters [2800 - 2899]
                                         (these will never be used in NICE messages).
```

```
15-Sep-1984 23:06:17 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:49:02 $255$DUA28:[NCP.OBJ]NMADEF.R32;1
      ! Maintenance state
                  Logical name
                  Designated name
                  Actual name
                  State (coded byte of NMASC_LIRSS_)
Substate (coded byte of NMASC_LIRSS_)
State (coded byte of NMASC_LIRSS_)
Substate (coded byte of NMASC_LIRSS_)
Service (coded byte of NMASC_LIRSS_)
Counter timer (word)
Loopback name (ascic) [V2 only]
Adjacent node [V2 only]
Block size (word) [V2 only]
Cost (byte) [V2 only]
Device (ascic)
Receive buffers
Controller (coded byte of NMASC_LINCN_)
Duplex (coded byte of NMASC_LINPR_)
Type (coded byte of NMASC_LINTY_) [V2 only]
Clock (coded byte of NMASC_LINTY_) [V2 only]
Clock (coded byte of NMASC_LINCL_)
Service timer (word)
Normal timer (word)
Holdback timer (word)
Holdback timer (word)
Maximum block (word)
Maximum window (byte)
Tributary (byte) [V2 only]
Scheduling timer (word)
Dead timer (word)
Stream timer (word)
Stream timer (word)
      Delay timer (word)
Stream timer (word)
       ! Hardware address (NI address)
```

```
literal NMASC PCLI STA = 0;
literal NMASC PCLI SUB = 1;
literal NMASC PCLI SER = 100;
literal NMASC PCLI LCT = 110;
literal NMASC PCLI LCT = 110;
literal NMASC PCLI LOO = 400;
literal NMASC PCLI BLO = 810;
literal NMASC PCLI BLO = 810;
literal NMASC PCLI DEV = 1100;
literal NMASC PCLI DEV = 1100;
literal NMASC PCLI DEV = 1110;
literal NMASC PCLI DUP = 1111;
literal NMASC PCLI DUP = 1111;
literal NMASC PCLI PRO = 1112;
literal NMASC PCLI LTY = 112;
literal NMASC PCLI STI = 1120;
literal NMASC PCLI STI = 1120;
literal NMASC PCLI NTI = 1121;
literal NMASC PCLI NTI = 1121;
literal NMASC PCLI MBL = 1130;
literal NMASC PCLI MBL = 1130;
literal NMASC PCLI MBL = 1130;
literal NMASC PCLI TRI = 1140;
literal NMASC PCLI STI = 1150;
literal NMASC
       ! RSX-specific line parameters
  literal NMASC PCLI RSX OWN = 2300;

literal NMASC PCLI RSX CCS = 2310;

literal NMASC PCLI RSX UCS = 2311;

literal NMASC PCLI RSX VEC = 2312;

literal NMASC PCLI RSX PRI = 2313;

literal NMASC PCLI RSX MDE = 2321;

literal NMASC PCLI RSX MDE = 2321;

literal NMASC PCLI RSX LLO = 2330;
                                                                                                                                                                                                                                                                                                                      Controller CSR
                                                                                                                                                                                                                                                                                                                      Unit CSR
                                                                                                                                                                                                                                                                                                                     Vector
                                                                                                                                                                                                                                                                                                ! Priority
                                                                                                                                                                                                                                                                                               ! Dead polling ratio
                                                                                                                                                                                                                                                                                                 Location
                               0. Firstfit
1. Topdown
    literal NMASC_PCLI_RSX_LOG = 2380:
literal NMASC_PCLI_RSX_DLG = 2385:
literal NMASC_PCLI_RSX_ACT = 2390:
                                                                                                                                                                                                                                                                                                 ! Logical name
                                                                                                                                                                                                                                                                                                                      Designated name
                                                                                                                                                                                                                                                                                                                      Actual name
                         VMS-specific line NICE parameters [2700 - 2799]
   literal NMASC_PCLI_MCD = 2701; ! Micro-code dump filespec (ascic)
```

literal NMASC\_PCCI\_MST = 2810;

literal NMA\$C\_PCCI\_SRV\_LOG = 3380: literal NMA\$C\_PCCI\_SRV\_DLG = 3385: literal NMA\$C\_PCCI\_SRV\_ACT = 3390:

Line parameters

Server Base specific Circuit parameters

```
15-Sep-1984 23:06:17 VAX-11 Bliss-32 V4.0-742
15-Sep-1984 22:49:02 _$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Page
                                              literal NMASC_PCLI_XMD = 2710;
literal NMASC_PCLI_EPT = 2720;
                                                                                                                                                                                                    ! X.25 line mode (coded byte of NMA$C_X25MD_)
! Ethernet Protocol Type (hex word)
                                                        VMS-specific datalink only line parameters [2800 - 2899]
                                         (these will never be used in NICE messages).

literal NMASC PCLI BUS = 2801; | Buffer si literal NMASC PCLI NMS = 2810; | Number of literal NMASC PCLI PPA = 2820; | Physical literal NMASC PCLI DPA = 2821; | (same as literal NMASC PCLI DPY = 2830; | Ethernet literal NMASC PCLI MCA = 2831; | UNA Multi (See NMASC LINMC) |

literal NMASC PCLI IIP = 2839; | DELUA Intiliteral NMASC PCLI IIP = 2840; | UNA Promi literal NMASC PCLI PRM = 2840; | UNA Promi literal NMASC PCLI PRM = 2841; | UNA Paddi literal NMASC PCLI DCH = 2843; | UNA Paddi literal NMASC PCLI DCH = 2843; | UNA Paddi literal NMASC PCLI DCH = 2845; | UNA Paddi literal NMASC PCLI DCH = 2845; | UNA Proto literal NMASC PCLI DCH = 2846; | UNA Proto literal NMASC PCLI BSZ = 2848; | UNA Proto literal NMASC PCLI BSZ = 2848; | UNA Devic literal NMASC PCLI DES = 2849; | UNA desti literal NMASC PCLI DES = 2849; | UNA desti literal NMASC PCLI DES = 2849; | UNA desti literal NMASC PCLI DES = 2850; | PCL numbe literal NMASC PCLI RET = 2850; | PCL addre literal NMASC PCLI NTLD = 2861; | Internal literal NMASC PCLI INTLD = 2866; | State infoliteral NMASC PCLI STI2 = 2867; | State infoliteral NMASC PCLI STI2 = 2866; | State infoliteral NMASC PCLI STI2 = 2867; | State infoliteral NMASC PCLI STI2 = 2869; | State infoliteral NMASC PCLI STI2 
                                                        (these will never be used in NICE messages).
                                                                                                                                                                                                               Buffer size (word)
                                                                                                                                                                                                               Number of DMP/DMF synch chars (word)
0358
0359
0360
0361
0362
0363
0364
                                                                                                                                                                                                               Physical NI address of UNA (hex string)
                                                                                                                                                                                                              (same as HWA); Default UNA physical address (hex string)
Ethernet Protocol type (word)
UNA Multicast address list (special)
                                                                                                                                                                                                               DELUA Internal Loopback mode
                                                                                                                                                                                                  UNA Promiscuous mode (coded byte of NMA$C_STATE_)
UNA Multicast address mode (coded byte of NMA$C_STATE_)
UNA Padding mode (coded byte of NMA$C_STATE_)
UNA Data chaining mode (coded byte of NMA$C_STATE_)
UNA CRC mode (coded byte of NMA$C_STATE_)
UNA Hardware Buffer Quota (word)
UNA protector mode (coded byte of NMA$C_ACC_)
0366
0367
0368
0369
0371
0372
0373
0376
0376
0377
                                                                                                                                                                                                  UNA protocol access mode (coded byte of NMA$C_ACC_)
UNA Echo mode (coded byte of NMA$C_STATE_)
UNA Device Buffer size
UNA destination Ethernet address
                                                                                                                                                                                                              PCL number of retries (word)
                                                                                                                                                                                                              PCL address mode (coded byte of NMA$C_LINMO_)
PCL retry-if-busy state (coded byte of NMA$C_STATE_)
Maintenance loopback mode for devices
0380
0381
0382
0383
                                                                                                                                                                                                               Internal loopback level 0
                                                                                                                                                                                                                Internal loopback level
                                                                                                                                                                                                               Internal loopback level 2
Internal loopback level 3
0384
0385
                                                                                                                                                                                                   Framing address for Bisylic
State info 1st longword
State info 2st longword
Wait for CTS time out value for DMF sync half duplex
0386
0387
0388
                                                                                                                                                                                                               Clear modem on deassign of channel
0389
                                                                                                                                                                                                              BISYNC protocol sync char
Number of bits per character
0390
0391
0392
0393
0394
0395
0396
0397
0400
0401
0402
0403
                                                                    Server Base specific line parameters
                                            literal NMASC PCLI SRV OWN = 3300:

literal NMASC PCLI SRV UCS = 3311:

literal NMASC PCLI SRV VEC = 3312:

literal NMASC PCLI SRV PRI = 3313:

literal NMASC PCLI SRV LOG = 3380:

literal NMASC PCLI SRV DLG = 3385:

literal NMASC PCLI SRV ACT = 3390:
                                                                                                                                                                                                               Owner
                                                                                                                                                                                                               Unit CSR
                                                                                                                                                                                                               Vector
                                                                                                                                                                                                               Priority
                                                                                                                                                                                                               Logical name
                                                                                                                                                                                                               Designated name
                                                                                                                                                                                                               Actual name
                                                                    Console module parameters
0404
                                               literal NMASC_PCCO_RTR = 110; ! Reservation timer (word)
```

! State (coded byte of NMASC\_STATE\_)

```
Loader module parameters
                                                                                                  ! Assistance flag (coded byte of NMA$C_ASS_)
                       literal NMASC_PCLD_ASS = 10;
                                  Looper module parameters
                       literal NMASC_PCLP_ASS = 10;
                                                                                                ! Assistance flag (coded byte of NMASC_ASS_)
                                  Configurator module parameters
                      literal NMASC PCCN CIR = 100;
literal NMASC PCCN SUR = 110;
literal NMASC PCCN ELT = 111;
literal NMASC PCCN PHA = 120;
literal NMASC PCCN LRP = 130;
literal NMASC PCCN MVR = 20001;
literal NMASC PCCN FCT = 20002;
literal NMASC PCCN CUS = 20003;
literal NMASC PCCN RTR = 20004;
literal NMASC PCCN RTR = 20006;
literal NMASC PCCN RSZ = 20006;
literal NMASC PCCN RSZ = 20006;
literal NMASC PCCN DTY = 20100;
literal NMASC PCCN SFI = 20200;
literal NMASC PCCN SFI = 20300;
literal NMASC PCCN SPR = 20300;
literal NMASC PCCN DLK = 20400;
                                                                                                        NI circuit name (ascic)
                                                                                                        Surveillance flag (coded byte of NMASC_SUR_)
                                                                                                        Elapsed time
                                                                                                        Physical address (NI address)
                                                                                                        Time of last report
                                                                                                       Maintenance version function list
                                                                                                        Current console user (NI address)
Reservation timer (word)
                                                                                                        Command buffer size (word)
                                                                                                        Response buffer size (word)
Hardware address (NI address)
                                                                                                        Device type (coded byte of NMASC_SOFD_)
Software ID
                                                                                                        System processor (coded word)
                                                                                                        Data link type (coded word)
                                  Logging parameters
                      literal NMASC_PCLO_STA = 0;
literal NMASC_PCLO_LNA = 100;
literal NMASC_PCLO_SIN = 200;
literal NMASC_PCLO_EVE = 201;
                                                                                                        State (coded byte of NMA$C_STATE_)
                                                                                                        System/name (ascic)
Sink node
                                                                                                        Events
                                  X.25 Access module parameters
                      literal NMASC_PCXA_NOD = 320;
literal NMASC_PCXA_USR = 330;
literal NMASC_PCXA_PSW = 331;
literal NMASC_PCXA_ACC = 332;
literal NMASC_PCXA_NET = 1110;
                                                                                                        Node
                                                                                                        User (ascic)
                                                                                                        Password (ascic)
                                                                                                        Account (ascic)
                                                                                                        Network (ascic)
                            RSX-specific X.25-Access module parameters
                       literal NMASC_PCXA_RSX_ADS = 2310;
literal NMASC_PCXA_RSX_ANB = 2320;
literal NMASC_PCXA_RSX_ASC = 2330;
                                                                                                        Destination
                                                                                                        Number
                                                                                                        Scope
                            Server Base specific X.25-Access module parameters
                       literal NMASC_PCXA_SRV_ADS = 3310;
literal NMASC_PCXA_SRV_ANB = 3320;
literal NMASC_PCXA_SRV_ASC = 3330;
                                                                                                        Destination
                                                                                                        Number
                                                                                                        Scope
                                  X.25 Protocol module parameters
```

literal NMA\$C\_PCXP\_STA = 0;

```
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                                                                                                                                                                                                                           VAX-11 Bliss-32 V4.0-742
$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                               literal NMASC PCXP CTM = 100;
literal NMASC PCXP ACH = 1000;
literal NMASC PCXP ASW = 1010;
literal NMASC PCXP DTE = 1100;
literal NMASC PCXP GRP = 1101;
literal NMASC PCXP NET = 1110;
literal NMASC PCXP LIN = 1120;
literal NMASC PCXP CHN = 1130;
literal NMASC PCXP MCH = 1131;
literal NMASC PCXP DBL = 1140;
literal NMASC PCXP DBL = 1140;
literal NMASC PCXP MBL = 1150;
literal NMASC PCXP MWI = 1151;
literal NMASC PCXP MST = 1152;
literal NMASC PCXP MST = 1154;
literal NMASC PCXP MST = 1160;
literal NMASC PCXP GT = 1161;
literal NMASC PCXP GT = 1162;
literal NMASC PCXP GT = 1163;
literal NMASC PCXP GT = 1170;
literal NMASC PCXP GT = 1170;
literal NMASC PCXP GT = 1170;
literal NMASC PCXP GT = 1172;
0463
0464
0465
0466
0467
0468
0467
0477
0473
0477
0477
0478
0481
0483
0485
0486
0487
0488
                                                                                                                                                Counter timer (word)
                                                                                                                                                Active channels (word)
                                                                                                                                                Active switched (word)
                                                                                                                                               DTE (ascic)
                                                                                                                                               Group (ascic)
Network (ascic)
Line (ascic)
Channels
                                                                                                                                                Maximum channels (word)
Default data (word)
                                                                                                                                              Default data (word)
Default window (byte)
Maximum data (word)
Maximum window (byte)
Maximum clears (byte)
Maximum resets (byte)
Maximum restarts (byte)
Call timer (byte)
Clear timer (byte)
Reset timer (byte)
Reset timer (byte)
                                                                                                                                                Restart timer (byte)
                                                                                                                                                Group DTE (ascic)
                                                                                                                                                Group number (word)
                                                                                                                                                Group type (coded byte of NMA$C_XPRTY_)
                                                     RSX-specific X.25-Protocol Module parameters
 0489
                                literal NMASC_PCXP_RSX_PMC = 2300;
                                                                                                                                         ! Maximum circuits
0491
0492
0493
0494
0495
                                        VMS-specific X25-PROTOCOL NICE parameters [2700 - 2799]
                                                                                                                                               Multinetwork Support flag (coded byte of NMA$C_XPRMN_) [disabled, enabled Maximum circuits, qualified by DTE Substate, qualified by DTE (coded byte of NMA$C_XPRSB_)
                                literal NMASC_PCXP_MNS = 2700;
literal NMASC_PCXP_MCI = 2710;
                                 literal NMASC_PCXP_SBS = 2720;
0496
0497
0498
                                        Server Base specific X.25-Protocol Module parameters
 0499
                                                                                                                                        ! Maximum circuits
                                literal NMASC_PCXP_SRV_PMC = 3300;
 0500
 0501
                                                X.25 server module parameters
0502
                               literal NMASC PCXS CTM = 100:
literal NMASC PCXS ACI = 200:
literal NMASC PCXS DST = 300:
literal NMASC PCXS MCI = 310:
literal NMASC PCXS NOD = 320:
literal NMASC PCXS NOD = 320:
literal NMASC PCXS SPW = 331:
literal NMASC PCXS RPW = 331:
literal NMASC PCXS ACC = 332:
literal NMASC PCXS ACC = 332:
literal NMASC PCXS OBJ = 340:
literal NMASC PCXS CMK = 351:
literal NMASC PCXS CMK = 351:
literal NMASC PCXS CWL = 352:
literal NMASC PCXS CWL = 352:
literal NMASC PCXS CWL = 355:
literal NMASC PCXS SAD = 355:
                                                                                                                                                Counter timer (word)
 0504
                                                                                                                                                Active circuits (word)
 0505
                                                                                                                                                Destination (ascic)
 0506
                                                                                                                                                Maximum circuits (word)
                                                                                                                                                Node
 0508
0509
                                                                                                                                                Username
                                                                                                                                               Password to set (ascic)
 0510
0511
0512
0513
0514
                                                                                                                                               Password to read (coded byte of NMA$C_NODPW_)
                                                                                                                                                Account (ascic)
                                                                                                                                              Object
Priority (byte)
Call mask (byte-counted hex)
 0515
0516
0517
                                                                                                                                                Call value (byte-counted hex)
                                                                                                                                                Group (ascic)
Number (ascic)
                                                                                                                                                Subaddresses
```

```
! RSX-specific X.25-Server Module parameters
literal NMASC_PCXS_RSX_5ST = 2310;
                                                                     VMS-specific X25-SERVER NICE parameters [2700 - 2799]
                                                                                                                                                                                                      Server state (coded byte of NMA$C_STATE_)
Dbject filespec (ascic)
                                                         literal NMASC_PCXS_STA = 2700;
literal NMASC_PCXS_FIL = 2710;
                                                                    Server Base specific X.25-Server Module parameters
                                                         literal NMA$C_PCXS_SRV_5ST = 3310; ! State
                                                             0. On
1. Off
                                                         ! X.25 trace module parameters (VMS-specific)
                                                     literal NMASC PCXT STA = 0;
literal NMASC PCXT BSZ = 100;
literal NMASC PCXT MBK = 101;
literal NMASC PCXT FNM = 102;
literal NMASC PCXT MBF = 103;
literal NMASC PCXT CPL = 104;
literal NMASC PCXT MVR = 105;
literal NMASC PCXT TPT = 106;
literal NMASC PCXT TPT = 106;
literal NMASC PCXT TST = 111;
                                                                                                                                                                                                                                    State (coded byte of NMA$L_STATE_)
Buffer size (word)
Maximum blocks/file (word)
filename (ascic)
Maximum number of buffers (word)
Global data capture limit (word)
Maximum trace file version (word)
Trace point name (ascic)
Per-trace capture size (word)
Per-trace state (coded byte of NMA$C_STATE_)
                                                                                                                                                                                                                                                         State (coded byte of NMA$C_STATE_)
                                                                                  Node parameters
                                                                                                                                                                                                                                     State (coded byte of NMA$C_STATE_)
Physical address (NI address)
Identification (ascic)
Management version (3 bytes)
Service circuit (ascic)
Service password (8 bytes)
Service device (coded byte of NMA$C_SOFD_)
CPU type (coded byte of NMA$C_CPU_)
Hardware address (NI address)
Service node version (coded byte of NMA$C_SVN_)
Load file (ascic)
Secondary loader (ascic)
Tertiary loader (ascic)
Diagnostic file (ascic)
Software type (coded byte of NMA$C_SOFT_)
Software ID (ascic)
Dump file (ascic)
Secondary dumper (ascic)
Dump address (longword)
Dump count (longword)
Host (read only parameter)
Host (write only parameter)
Loop count (word)
Loop length (word)
Loop Data type (coded byte of NMA$C_LOOP_)
                                                    literal NMASC PCNO STA = 0:
literal NMASC PCNO PHA = 10:
literal NMASC PCNO IDE = 100:
literal NMASC PCNO STA = 10:
literal NMASC PCNO STA = 101:
literal NMASC PCNO STA = 111:
literal NMASC PCNO SPA = 111:
literal NMASC PCNO SPA = 111:
literal NMASC PCNO SPA = 114:
literal NMASC PCNO STA = 114:
literal NMASC PCNO STA = 115:
literal NMASC PCNO STA = 110:
literal NMASC PCNO STA = 112:
literal NMASC PCNO STA = 112:
literal NMASC PCNO STA = 120:
literal NMASC PCNO STA = 120:
literal NMASC PCNO STA = 125:
literal NMASC PCNO STA = 125:
literal NMASC PCNO STA = 125:
literal NMASC PCNO DUM = 130:
literal NMASC PCNO DUM = 130:
literal NMASC PCNO DUM = 131:
literal NMASC PCNO DOT = 136:
literal NMASC PCNO DOT = 140:
literal NMASC PCNO LPC = 150:
literal NMASC PCNO LPC = 150:
literal NMASC PCNO LPC = 150:
literal NMASC PCNO LPC = 151:
literal NMASC PCNO LPC = 151:
literal NMASC PCNO LPD = 152:
```

```
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                                                                                                                                                                                                                                                                                      VAX-11 Bliss-32 V4.0-742
$255$DUA28:[NCP.0BJ]NMADEF.R32;1
                                       literal NMASC PCNO LPA = 153;
literal NMASC PCNO LPH = 154;
literal NMASC PCNO LPN = 155;
literal NMASC PCNO LAN = 156;
literal NMASC PCNO CTI = 160;
literal NMASC PCNO NNA = 500;
literal NMASC PCNO ADD = 502;
literal NMASC PCNO ADD = 502;
literal NMASC PCNO DTI = 511;
literal NMASC PCNO DEL = 600;
literal NMASC PCNO DEL = 601;
literal NMASC PCNO DEL = 601;
literal NMASC PCNO DFA = 720;
literal NMASC PCNO DFA = 720;
literal NMASC PCNO DFA = 720;
literal NMASC PCNO DTY = 810;
literal NMASC PCNO DTY = 810;
literal NMASC PCNO DOC = 820;
literal NMASC PCNO DLI = 822;
literal NMASC PCNO DLI = 822;
literal NMASC PCNO NND = 830;
literal NMASC PCNO NND = 830;
literal NMASC PCNO RYE = 900;
literal NMASC PCNO RYE = 900;
literal NMASC PCNO BRT = 912;
literal NMASC PCNO MAD = 921;
literal NMASC PCNO MAD = 922;
literal NMASC PCNO MAD = 923;
literal NMASC PCNO MAD = 923;
literal NMASC PCNO MAD = 924;
literal NMASC PCNO MAD = 925;
literal NMASC PCNO MAD = 926;
literal NMASC PCNO MBE = 927;
literal NMASC PCNO MBE = 928;
literal NMASC PCNO BBS = 931;
literal NMASC PCNO BBS = 931;
literal NMASC PCNO BBS = 931;
literal NMASC PCNO BBS = 932;
literal NMASC PCNO BBS = 933;
                                                                                                                                                                                       Loop assistant physical address (NI address)
Loop help type (coded byte)
Loop circuit node
 0577
0578
0579
0580
0581
0582
0583
0584
0585
0586
0587
                                                                                                                                                                                        Loop circuit assistant node
                                                                                                                                                                                        Counter timer (word)
                                                                                                                                                                                        Circuit (ascic)
                                                                                                                                                                                        Address
                                                                                                                                                                                       Incoming timer (word)
Outgoing timer (word)
Active links (word)
 0588
0589
0590
0591
0592
0593
                                                                                                                                                                                       Delay (word)
Nsp version (3 bytes)
Maximum links (word)
                                                                                                                                                                                      Delay factor (byte)
Delay weight (byte)
Inactivity timer (word)
Retransmit factor (word)
Destination Type (coded byte of NMA$C_XPRTY_)
Destination Cost (word)
Destination Hops (byte)
Destination circuit (ascic)
Next node to destination
 0594
0595
0596
0597
 0598
0599
                                                                                                                                                                                       Next node to destination
Routing version (3 bytes)
Executor Type (coded byte of NMA$C_NODTY_)
 0600
0601
0602
0603
0604
                                                                                                                                                                                        Routing timer (word)
Subaddress (2 words)
                                                                                                                                                                                       Broadcast routing timer (word)
Maximum address (word)
 0605
 0606
0607
                                                                                                                                                                                        Maximum circuits (word)
                                                                                                                                                                                      Maximum cost (word)
Maximum hops (byte)
Maximum visits (byte)
 0608
 0609
 0610
                                                                                                                                                                                       Maximum areas (byte)
Maximum broadcast nonrouters (word)
 0611
0612
0613
0614
0615
0616
0617
0618
0620
0621
0623
0624
0625
0626
0627
0628
0630
0631
0632
                                                                                                                                                                                        Maximum broadcast routers (word)
                                                                                                                                                                                        Area maximum cost (word)
                                                                                                                                                                                       Area maximum hops (byte)
Maximum buffers (word)
                                                                                                                                                                                       Executor buffer size (word)
Segment buffer size (word)
                                                                                                                                                                                       Forwarding buffer size (word)
                                                  RSX-Specific Node (Executor) parameters
                                         literal NMASC_PCNO_RSX_RPA = 2300;
                                                                                                                                                                                      Receive password
                                         0. Password set
literal NMASC_PCNO_RSX_TPA = 2301;
                                                                                                                                                                                      Transmit password
                                         0, Password set
literal NMASC_PCNO_RSX_VER = 2310;
                                                                                                                                                                              ! Verification state
                                                     0. On
1. Off
                                                  VMS-specific node parameters
                                         literal NMASC_PCNO_PUS = 2704;
literal NMASC_PCNO_PAC = 2705;
                                                                                                                                                                        Privileged user in Privileged account
```

```
N 7
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                                                                                                                                                                                                 VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                     Page
                           literal NMASC PCNO PPW = 2706:
literal NMASC PCNO NUS = 2712:
literal NMASC PCNO NAC = 2713;
literal NMASC PCNO NPW = 2714:
literal NMASC PCNO RPA = 2720:
literal NMASC PCNO TPA = 2721:
literal NMASC PCNO ACC = 2730:
literal NMASC PCNO DAC = 2731:
literal NMASC PCNO PIQ = 2740:
literal NMASC PCNO ALI = 2741:
literal NMASC PCNO PRX = 2750:
literal NMASC PCNO DPX = 2751:
Privileged password
Non-privileged user id
                                                                                                                               Non-privileged account
                                                                                                                               Non-privileged password
                                                                                                                               Receive password
Transmit password
                                                                                                                               Access (coded byte of NMASC_ACES_)
                                                                                                                               Default access (coded byte of NMASC_ACES_)
                                                                                                                               Pipeline quota (word)
                                                                                                                               Alias address (word)
                                                                                                                               Proxy access (coded byte of NMASC_ACES_) !! Obsolete: Only for LIST/PURGE
                                                                                                                               Default proxy access (coded byte of NMASC_ACES_)
                                   Server Base specific Node (Executor) parameters
                             literal NMASC_PCNO_SRV_RPA = 3300;
                                                                                                                         ! Receive password
                             0. Password set
literal NMA$C_PCNO_SRV_TPA = 3301;
0. Password set
                                                                                                                               Transmit password
                             literal NMASC_PCNO_SRV_VER = 3310;
                                                                                                                               Verification state
                           1, Off
literal NMASC PCNO SRV ACB = 3402;
literal NMASC PCNO SRV ASB = 3404;
literal NMASC PCNO SRV ALB = 3406;
literal NMASC PCNO SRV MCB = 3410;
literal NMASC PCNO SRV MSB = 3420;
literal NMASC PCNO SRV MLB = 3430;
literal NMASC PCNO SRV LBS = 3431;
literal NMASC PCNO SRV NRB = 3440;
literal NMASC PCNO SRV CPT = 3450;
literal NMASC PCNO SRV CPF = 3452;
literal NMASC PCNO SRV CPL = 3454;
literal NMASC PCNO SRV XPT = 3460;
literal NMASC PCNO SRV XPT = 3460;
literal NMASC PCNO SRV XPF = 3462;
literal NMASC PCNO SRV XPF = 3464;
                                            Off
                                                                                                                               Active control buffers
                                                                                                                               Active small buffers
                                                                                                                               Active large buffers
                                                                                                                               Maximum control buffers
                                                                                                                               Maximum small buffers
                                                                                                                              Maximum small buffers

Haximum large buffers

Large buffer size

Minimum receive buffers

CEX pool: total bytes

CEX pool: number of segments
                                                                                                                               CEX pool: largest segment
                                                                                                                               Extended pool: total bytes
Extended pool: number of segments
                                                                                                                               Extended pool: largest segment
                                          Area parameters
                            literal NMASC_PCAR_STA = 0;
literal NMASC_PCAR_COS = 820;
literal NMASC_PCAR_HOP = 821;
literal NMASC_PCAR_CIR = 822;
literal NMASC_PCAR_NND = 830;
                                                                                                                               State (coded byte of NMASC_STATE_)
                                                                                                                               Cost (word)
                                                                                                                               Hops (byte)
                                                                                                                               Circuit (ascic)
                                                                                                                               Next node to area
                                          VMS-specific object parameters
                           literal NMASC_PCOB_DAN = 400;
literal NMASC_PCOB_DAC = 410;
literal NMASC_PCOB_DAC = 500;
literal NMASC_PCOB_DCO = 510;
literal NMASC_PCOB_DUS = 511;
literal NMASC_PCOB_DVE = 520;
literal NMASC_PCOB_NAM = 500;
literal NMASC_PCOB_NUM = 513;
literal NMASC_PCOB_FID = 530;
literal NMASC_PCOB_PID = 535;
                                                                                                                               Active name
                                                                                                                               Active links
                                                                                                                               Name
                                                                                                                               Copies
                                                                                                                               User
                                                                                                                               Verification
 0687
0688
                                                                                                                               Name
                                                                                                                               Number
                                                                                                                               file id
 0690
                                                                                                                               Process id
```

```
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_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                 (1)
                                                                           Page
Privilege list
User 1d
Account
Password
Proxy access (coded byte of NMASC_ACES_)
State
Process id
Partner Node
Link address [V2 only]
Round trip delay time (word)
Remote link number (word)
Remote identification, PID or username (ascic)
Username of link owner (ascic)
Process name of link owner (ascic)
Seconds since last zeroed
Terminating packets received
Originating packets sent
Terminating congestion loss
Corruption loss
Transit packets received
Transit packets sent
Transit congestion loss
Circuit down
Initialization failure
Bytes received
Bytes sent
Multicast bytes received
Data blocks received
Data blocks sent
Data errors inbound
Data errors outbound
Remote reply timeouts
Local reply timeouts
Remote buffer errors
Local buffer errors
Selection intervals elapsed
Selection timeouts
NI user buffer unavailable
Remote process errors [V2 only]
Local process errors [V2 only]
Locally initiated resets
Remotely initiated resets
Network initiated resets
```

! Multicast received for protocol

! PCL Errors inbound, bit-mapped

literal NMASC\_PCOB\_PRV = 540: literal NMASC\_PCOB\_USR = 550: literal NMASC\_PCOB\_ACC = 551: literal NMASC\_PCOB\_PSW = 552: literal NMASC\_PCOB\_PRX = 560:

Circuit counters

literal NMASC CTCIR ZER = 0:
literal NMASC CTCIR APR = 800;
literal NMASC CTCIR APR = 801;
literal NMASC CTCIR ACL = 802;
literal NMASC CTCIR ACL = 805;
literal NMASC CTCIR TPR = 810;
literal NMASC CTCIR TPR = 811;
literal NMASC CTCIR TPS = 811;
literal NMASC CTCIR TPS = 811;
literal NMASC CTCIR TCL = 820;
literal NMASC CTCIR ARC = 1000;
literal NMASC CTCIR BRC = 1000;
literal NMASC CTCIR BRC = 1001;
literal NMASC CTCIR BRC = 1001;
literal NMASC CTCIR DBR = 1010;
literal NMASC CTCIR DBR = 1011;
literal NMASC CTCIR DBR = 1011;
literal NMASC CTCIR DEI = 1020;
literal NMASC CTCIR BE = 1041;
literal NMASC CTCIR RBE = 1040;
literal NMASC CTCIR SIE = 1050;
literal NMASC CTCIR SIE = 1050;
literal NMASC CTCIR SIE = 1051;
literal NMASC CTCIR SIE = 1050;
literal NMASC CTCIR RBE = 1101;
literal NMASC CTCIR LBE = 1101;
literal NMASC CTCIR LBE = 1101;
literal NMASC CTCIR LIR = 1240;
literal NMASC CTCIR RIR = 1241;
literal NMASC CTCIR RIR = 1242;

VMS-specific Circuit counters

VMS-specific circuit counters

literal NMA\$C\_CTCIR\_MNE = 2701;

type, but not enabled literal NMASC\_CTCIR\_ERI = 2750;

VMS-specific link parameters

literal NMASC\_PCLK\_STA = 0; literal NMASC\_PCLK\_PID = 101; literal NMASC\_PCLK\_NID = 102; literal NMASC\_PCLK\_LAD = 105; ! entity is node rather than link! CM-1/2, DU-2 (link!), HI-4 (pid) literal NMASC\_PCLK\_DLY = 110; literal NMASC\_PCLK\_RID = 120; literal NMASC\_PCLK\_RID = 121; literal NMASC\_PCLK\_USR = 130; literal NMASC\_PCLK\_PRC = 131;

..

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```

```
O CRC error on receive literal NMASC CTCIR ERO = 2751; CRC on transmit
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                                                                                                                                                                                                                                                                    PCL Errors outbound, bit-mapped
                                                         2 Timeout on word
literal NMASC CTCIR RTO = 2752;
0 Receiver busy
                                                                                                                                                                                                                                                                    PCL Remote timeouts, bit-mapped
                                                        Transmitter offline
Receiver offline
Literal NMASC_CTCIR_LTO = 2753;
Literal NMASC_CTCIR_BER = 2754;
Literal NMASC_CTCIR_BEL = 2755;
                                                                                                                                                                                                                                                                    PCL Local timeouts
PCL Remote buffer errors
                                                                                                                                                                                                                                                                     PCL Local buffer errors
                                                       literal NMASC_CTLIN_ZER = 0;
literal NMASC_CTLIN_APR = 800;
literal NMASC_CTLIN_DPS = 801;
literal NMASC_CTLIN_TPR = 810;
literal NMASC_CTLIN_TPR = 810;
literal NMASC_CTLIN_TPS = 811;
literal NMASC_CTLIN_TCL = 812;
literal NMASC_CTLIN_TCL = 812;
literal NMASC_CTLIN_LDN = 820;
literal NMASC_CTLIN_BRC = 1000;
literal NMASC_CTLIN_BRC = 1001;
literal NMASC_CTLIN_BRS = 1001;
literal NMASC_CTLIN_DBS = 1001;
literal NMASC_CTLIN_DBS = 1011;
literal NMASC_CTLIN_DBS = 1011;
literal NMASC_CTLIN_BSD = 1012;
literal NMASC_CTLIN_BSD = 1015;
literal NMASC_CTLIN_DEI = 1020;
literal NMASC_CTLIN_DEI = 1020;
literal NMASC_CTLIN_DEI = 1031;
literal NMASC_CTLIN_RRT = 1030;
literal NMASC_CTLIN_LBE = 1040;
literal NMASC_CTLIN_LBE = 1041;
literal NMASC_CTLIN_SIE = 1050;
literal NMASC_CTLIN_SIE = 1050;
literal NMASC_CTLIN_SIE = 1061;
literal NMASC_CTLIN_SIE = 1060;
literal NMASC_CTLIN_SIE = 1060;
literal NMASC_CTLIN_SIE = 1063;
literal NMASC_CTLIN_SIE = 1066;
literal NMASC_CTLIN_SBU = 1066;
literal NMASC_CTLIN_SBU = 1066;
literal NMASC_CTLIN_DED = 1066;
literal NMASC_CTLIN_SBU = 1066;
literal NMASC_CTLIN_SBU = 1066;
literal NMASC_CTLIN_LPE = 1100;
literal NMASC_CTLIN_LPE = 1100;
literal NMASC_CTLIN_LPE = 1100;
                                                                                     Line counters
                                                                                                                                                                                                                                                                     Seconds since last zeroed
                                                                                                                                                                                                                                                                     Arriving packets received [V2 only]
                                                                                                                                                                                                                                                                    Departing packets sent [V2 only]
Arriving congestion loss [V2 only]
Transit packets received [V2 only]
Transit packets sent [V2 only]
                                                                                                                                                                                                                                                                    Transit congestion loss [V2 only]
Line down [V2 only]
Initialization failure [V2 only]
                                                                                                                                                                                                                                                                     Bytes received
                                                                                                                                                                                                                                                                     Bytes sent
                                                                                                                                                                                                                                                                     Multicast bytes received
                                                                                                                                                                                                                                                                     Data blocks received
                                                                                                                                                                                                                                                                     Data blocks sent
                                                                                                                                                                                                                                                                     Multicast blocks received
                                                                                                                                                                                                                                                                     Blocks sent, initially deferred
                                                                                                                                                                                                                                                                    Blocks sent, single collision
Blocks sent, multiple collisions
                                                                                                                                                                                                                                                                     Data errors inbound
                                                                                                                                                                                                                                                                     Data errors outbound
                                                                                                                                                                                                                                                                    Remote reply timeouts
Local reply timeouts
Remote buffer errors
                                                                                                                                                                                                                                                                     Local buffer errors
                                                                                                                                                                                                                                                                     Selection intervals elapsed [V2 only]
                                                                                                                                                                                                                                                                    Selection timeouts [V2 only]
Send failure
                                                                                                                                                                                                                                                                    Collision detect check failure
Receive failure
                                                                                                                                                                                                                                                                     Unrecognized frame destination
                                                                                                                                                                                                                                                                     Data overrun
                                                                                                                                                                                                                                                                     System buffer unavailable
                                                                                                                                                                                                                                                                     User buffer unavailable
                                                                                                                                                                                                                                                                     Remote process errors
                                                           literal NMASC_CTLIN_LPE = 1101;
                                                                                                                                                                                                                                                                     Local process errors
                                                                       Line counter flags (byte offset will be 0)
                                                        literal NMASS NMADEF1 = 2:
macro NMASW_NODE = 0.0.16.0 %:
macro NMASV_ADDR = 0.0.10.0 %:
literal NMASS_ADDR = 10:
                                                         macro NMASY_AREA = 0,10,6,0 %;
```

```
0 8
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 0805
0806
0807
0808
                                                 literal NMASS_AREA = 6:
                                                            Parameter ID word (DATA ID)
0809
0810
0811
0812
0813
0814
0815
0816
0817
0818
0819
0821
0823
0824
0825
0826
0827
                                                 macro NMASV_PTY_TYP = 0.0,15,0 %;
                                                 literal NMASS_PTY_TYP = 15;
                                                                                                                                                                                                                      Type mask
                                             macro NMA$V PTY CLE = 0,0.6.0 %;
literal NMA$S PTY CLE = 6;
macro NMA$V PTY MDL = 0,6.1.0 %;
macro NMA$V PTY COD = 0.7.1.0 %;
macro NMA$V PTY COD = 0.7.1.0 %;
macro NMA$V PTY CMU = 0,6.2.0 %;
literal NMA$S PTY CMU = 2;
macro NMA$V PTY NDE = 4;
macro NMA$V PTY NDE = 4;
macro NMA$V PTY NDE = 4;
literal NMA$S PTY NTY = 0,4.2.0 %;
literal NMA$S PTY NTY = 2;
macro NMA$V PTY ASC = 0,6.1.0 %;
literal NMA$M CTLIN FCS = 16;
literal NMA$M CTLIN FCS = 16;
literal NMA$M CTLIN TRJ = 32;
literal NMA$M CTLIN TRJ = 32;
literal NMA$S NMADEF2 = 1;
macro NMA$V CTLIN BTL = 0,3.1.0 %;
macro NMA$V CTLIN BTL = 0,3.1.0 %;
literal NMA$M CTLIN RRJ = 8;
literal NMA$M CTLIN RRJ = 8;
literal NMA$M CTLIN RRJ = 0,3.1.0 %;
literal NMA$M CTLIN RRD = 4;
literal NMA$M CTLIN RRD = 4;
literal NMA$S NMADEF5 = 1;
macro NMA$V CTLIN RRD = 0,2.1.0 %;
literal NMA$M CTLIN TRN = 4;
literal NMA$M CTLIN TRN = 4;
literal NMA$M CTLIN TRN = 0,2.1.0 %;
literal NMA$M CTLIN TRN = 0,2.1.0 %;
literal NMA$M CTLIN TRN = 16;
literal NMA$M CTLIN TRN = 16;
literal NMA$M CTLIN TRN = 16;
literal NMA$M CTLIN TRN = 32;
literal NMA$M CTLIN TRN = 2,2.1.0 %;
literal NMA
                                                            Parameter data type byte (DATA TYPE)
                                                                                                                                                                                                                           Coded length mask
Coded multiple indicator
                                                                                                                                                                                                                           Coded indicator
                                                                                                                                                                                                                          Coded multiple
                                                                                                                                                                                                                          Number length mask
                                                                                                                                                                                                                           Number type mask
                                                                                                                                                                                                                           Ascii image indicator
                        Ŏ
 0828
 0829
 0830
                                                                                                                                                                                                                           block too long
 0831
                                                                                                                                                                                                                           frame check
0832
0833
                                                                                                                                                                                                                          REJ sent
0834
0835
                                                                                                                                                                                                                          REJ received
0836
0837
0838
                                                                                                                                                                                                                          RNR received
0839
0840
0841
0842
0843
                                                                                                                                                                                                                          RNR sent
0844
0845
                                                                                                                                                                                                                          invalid N(R) received
0846
0847
0848
0849
                                                                                                                                                                                                                          FRMR sent
0850
0851
0852
0853
0854
0855
0856
                                                                                                                                                                                                                          Multicast packets transmitted
                                                                                                                                                                                                                          Multicast bytes transmitted
                                                                                                                                                                                                                          PCL Remote errors, bit-mapped
                                                                                                    Message rejected
                                                                                                    Message truncated
                                                                                                    Receiver offline
                                                                                                     Receiver busy
 0858
0859
                                                                                                    Transmitter offline
                                                  literal NMASC_CTLIN_LCE = 2751;
                                                                                                                                                                                                               ! PCL Local errors, bit-mapped
                                                                                                   Transmitter overrun
 0860
0861
```

CRC error on transmit

E

DE

```
CRC error on receive
                                                        Timeouts
                                                        Non-existant memory transmit
                                                        Non-existant memory receive
                                                       Buffer to small
                                                        failed to open channel
                            8 Memory overflow
literal NMASC CTLIN MSE = 2752;
1 Master down
                                                                                                                   ! PCL master/secondary errors, bit-mapped
                                                       Now master
                                        Node counters
                          literal NMASC CTNOD ZER = 0:
literal NMASC CTNOD BRC = 600;
literal NMASC CTNOD BSN = 601;
literal NMASC CTNOD MRC = 610;
literal NMASC CTNOD MSN = 611;
literal NMASC CTNOD CRC = 620;
literal NMASC CTNOD CSN = 621;
literal NMASC CTNOD RTO = 630;
literal NMASC CTNOD RSE = 640;
literal NMASC CTNOD MLL = 700;
literal NMASC CTNOD MLL = 700;
literal NMASC CTNOD NUL = 901;
literal NMASC CTNOD NUL = 901;
literal NMASC CTNOD OPL = 903;
literal NMASC CTNOD PFE = 910;
literal NMASC CTNOD RUL = 920;
literal NMASC CTNOD RUL = 920;
literal NMASC CTNOD VER = 930;
                                                                                                                          Seconds since last zeroed
                                                                                                                          Bytes received
                                                                                                                         Bytes sent
                                                                                                                          Messages received
                                                                                                                          Messages sent
                                                                                                                          Connects received
                                                                                                                          Connects sent
                                                                                                                          Response timeouts
                                                                                                                         Received connect resource errors
Maximum logical links active
Aged packet loss
                                                                                                                          Node unreachable packet loss
                                                                                                                          Node out-of-range packet loss
                                                                                                                          Oversized packet loss
                                                                                                                          Packet format error
                                                                                                                          Partial routing update loss
                                                                                                                          Verification reject
                                 Server Base Specific Executor Node Counters
                           literal NMA$C_CTNOD_SRV_SYC = 3310;
literal NMA$C_CTNOD_SRV_SYS = 3320;
literal NMA$C_CTNOD_SRV_SYL = 3330;
literal NMA$C_CTNOD_SRV_SYR = 3340;
                                                                                                                          Control buffer failures
                                                                                                                          Small buffer failures
                                                                                                                          Large buffer failures
                                                                                                                         Receive buffer failures
                                                 X.25 Protocol module counters
                          literal NMASC CTXP ZER = 0;

literal NMASC CTXP BRC = 1000;

literal NMASC CTXP BSN = 1001;

literal NMASC CTXP BLR = 1010;

literal NMASC CTXP BLS = 1011;

literal NMASC CTXP CRC = 1200;

literal NMASC CTXP FSR = 1210;

literal NMASC CTXP FSR = 1210;

literal NMASC CTXP FSS = 1211;

literal NMASC CTXP MSA = 1220;

literal NMASC CTXP MSA = 1220;

literal NMASC CTXP RSE = 1230;

literal NMASC CTXP RSE = 1230;

literal NMASC CTXP RIR = 1240;

literal NMASC CTXP RIR = 1241;

literal NMASC CTXP RIR = 1242;

literal NMASC CTXP RIR = 1242;

literal NMASC CTXP RIR = 1242;

literal NMASC CTXP RIR = 1242;
                                                                                                                          Seconds since last zeroed
                                                                                                                          Bytes received
                                                                                                                          Bytes sent
                                                                                                                          Data blocks received
                                                                                                                          Data blocks sent
                                                                                                                          Calls received
                                                                                                                          Calls sent
                                                                                                                          Fast selects received
                                                                                                                          fast selects sent
                                                                                                                          Maximum switched circuits active
                                                                                                                          Maximum channels active
                                                                                                                          Received call resource errors
                                                                                                                          Locally initiated resets
                                                                                                                          Remotely initiated resets
                                                                                                                          Network initiated resets
```

Restarts

-

\$1

81

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```

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0933
                                     X.25 Server module counters
                    literal NMASC_CTXS_ZER = 0;
literal NMASC_CTXS_MCA = 200;
literal NMASC_CTXS_ICR = 210;
literal NMASC_CTXS_LLR = 211;
                                                                                            Seconds since last zeroed
                                                                                            Maximum circuits active
                                                                                            Incoming calls rejected, no resources Logical links rejected, no resources
                                     Coded parameter values
                         Loop test block type coded values
                     literal NMASC_LOOP_MIX = 2:
literal NMASC_LOOP_ONE = 1:
literal NMASC_LOOP_ZER = 0;
                                                                                            Mixed
                                                                                            Ones
                                                                                            Zeroes
0934
                         Default values for loop functions
0936
0937
                     literal NMASC_LOOP_DCNT = 1:
literal NMASC_LOOP_DSIZ = 40;
                                                                                            Default count
0938
                                                                                            Default message size
0939
0940
                         Values for LOOP HELP
0941
0942
0943
0944
0945
                    literal NMA$C_LOOP_XMIT = 0:
literal NMA$C_LOOP_RECV = 1:
literal NMA$C_LOOP_FULL = 2;
                                                                                            Transmit
                                                                                            Receive
                                                                                       ! full (both transmit and receive)
0946
0947
0948
          00000000000000
                         State coded values
                    literal NMASC_STATE_ON = 0;
literal NMASC_STATE_OFF = 1;
                                                                                           On
Off
0949
0950
0951
0952
0953
0954
0955
                              circuit/line/process specific state values
                    literal NMA$C_STATE_SER = 2;
literal NMA$C_STATE_CLE = 3;
                                                                                            Service (circuit/line only)
                                                                                            Cleared
0956
0957
0958
                              logging specific state values
                    literal NMASC_STATE_HOL = 2:
                                                                                       ! Hold
0959
0960
                              node specific state values
0961
0962
0963
0964
0965
0966
0967
0968
                    literal NMA$C_STATE_SHU = 2:
literal NMA$C_STATE_RES = 3:
literal NMA$C_STATE_REA = 4:
literal NMA$C_STATE_UNR = 5;
                                                                                            Shut
                                                                                            Restricted
                                                                                            Reachable
                                                                                            Unreachable
                         Looper/loader assistance coded values
                    literal NMASC_ASS_ENA = 0;
literal NMASC_ASS_DIS = 1;
                                                                                            Enabled
0970
                                                                                            Disabled
0971
0972
0973
                         Configurator surveillance coded values
0974
                    literal NMASC_SUR_ENA = 0:
literal NMASC_SUR_DIS = 1:
                                                                                            Enabled
```

Disabled

Sy

EX

EX

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ND

SC SC SY

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      Circuit/Line substate coded values
literal NMASC_LINSS_STA = 0:
literal NMASC_LINSS_REF = 1;
literal NMASC_LINSS_LOO = 2;
literal NMASC_LINSS_LOA = 3;
literal NMASC_LINSS_DUM = 4;
literal NMASC_LINSS_TRI = 5;
literal NMASC_LINSS_ASE = 6;
literal NMASC_LINSS_ALO = 7;
literal NMASC_LINSS_ADU = 8;
literal NMASC_LINSS_ATR = 9;
literal NMASC_LINSS_SYN = 10;
literal NMASC_LINSS_FAI = 11;
literal NMASC_LINSS_FAI = 11;
literal NMASC_LINSS_RUN = 12;
literal NMASC_LINSS_IDL = 14;
                                                                                        Starting
                                                                                        Reflecting
                                                                                        Looping
                                                                                         Loading
                                                                                        Dumping
                                                                                        Triggering
                                                                                        Autoservice
                                                                                        Autoloading
                                                                                        Autodumping
                                                                                        Autotriggering
                                                                                        Synchronizing
                                                                                        failed
                                                                                        Running
                                                                                        Unsyncronised
                                                                                        Idle (PSI-only)
                                                                [In V2, line type coded values]
      Circuit type coded values
literal NMASC_CIRTY_POI = 0:
literal NMASC_CIRTY_CON = 1:
literal NMASC_CIRTY_TRI = 2:
literal NMASC_CIRTY_X25 = 3:
literal NMASC_CIRTY_DMC = 4:
CIRTY_LAPB, 5
                                                                                        DDCMP Point DDCMP Controller
                                                                                        DDCMP Tributary
                                                                                        DDCMP DMC compatibility mode (DMP)
                                                                                    /* LAPB *** remove once all references have been changed to LAPB ***
 literal NMASC_CIRTY_NI = 6:
                    Circuit/Line Service
literal NMASC_LINSV_ENA = 0;
literal NMASC_LINSV_DIS = 1;
                                                                                       Enabled
                                                                                       Disabled
      Circuit polling state
literal NMA$C_CIRPST_AUT = 1:
literal NMA$C_CIRPST_ACT = 2:
literal NMA$C_CIRPST_INA = 3:
literal NMA$C_CIRPST_DIE = 4:
literal NMA$C_CIRPST_DED = 5:
                                                                                        Automatic
                                                                                        Active
                                                                                        Inactive
                                                                                        Dying
                                                                                        Dead
      Circuit blocking values
 literal NMASC_CIRBLK_ENA = 0;
literal NMASC_CIRBLK_DIS = 1;
                                                                                        Enabled
                                                                                       Disabled
      Circuit usage values
literal NMASC_CIRUS_PER = 0:
literal NMASC_CIRUS_INC = 1:
Literal NMASC_CIRUS_OUT = 2:
                                                                                        Permanent
                                                                                        Incoming
                                                                                        Outgoing
      Circuit maximum receive buffers
```

! Unlimited

literal NMA\$C\_CIRBF\_UNL = 255;

Clear entire list of multicast addresses

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1033
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1038
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1043
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1046
1047
                             Circuit verification [VMS only]
                        literal NMASC_CIRVE_ENA = 0:
Literal NMASC_CIRVE_DIS = 1;
                                                                                                           Enabled
                                                                                                          Disabled
                             Circuit (desired) transport type
                                                                                                   [VMS only]
                        literal NMASC_CIRXPT_ZND = 1:
literal NMASC_CIRXPT_PH2 = 2:
literal NMASC_CIRXPT_PH3 = 3:
literal NMASC_CIRXPT_RO3 = 3:
literal NMASC_CIRXPT_NR4 = 4:
                                                                                                           Force Phase II on this circuit
                                                                                                           Routing III
                                                                                                          Routing III
Nonrouting Phase IV
                            Line duplex coded values
                        literal NMASC_DPX_FUL = 0;
literal NMASC_DPX_HAL = 1;
1050
1051
1052
1053
1054
1055
                           Line controller mode
                        literal NMASC_LINCN_NOR = 0;
                                                                                                           Normal
                        literal NMASC_LINCN_LOO = 1;
                                                                                                           Loop
1056
1057
                            Line protocol values (same as (IRTY_)
                       literal NMASC_LINPR_POI = 0;
literal NMASC_LINPR_CON = 1;
literal NMASC_LINPR_TRI = 2;
literal NMASC_LINPR_DMC = 4;
literal NMASC_LINPR_LAPB = 5;
literal NMASC_LINPR_NI = 6;
literal NMASC_LINPR_BSY = 9;
1058
                                                                                                           DDCMP Point
1059
                                                                                                          DDCMP Controller
DDCMP Tributary
1060
1061
1062
1063
1064
1065
1066
1067
1070
1071
1072
1073
1076
1077
1078
                                                                                                           DDCMP DMC compatibility mode (DMP)
                                                                                                          LAPB
                                                                                                           BISYNC
                             Line protocol values for the PCL-11B
                       literal NMASC_LINPR_MAS = 1;
literal NMASC_LINPR_NEU = 2;
literal NMASC_LINPR_SEC = 0;
                                                                                                           Master (controls clock signals)
                                                                                                          Neutral (uses master's clock signals)
Secondary (backup for master failure)
                             Line clock values
                        literal NMASC_LINCL_EXT = 0:
literal NMASC_LINCL_INT = 1:
                                                                                                           External
                                                                                                          Internal
                             Line type coded values [V2 only]
                        literal NMASC_LINTY_POI = 0:
literal NMASC_LINTY_CON = 1:
literal NMASC_LINTY_TRI = 2:
literal NMASC_LINTY_DMC = 3:
                                                                                                           DDCMP Point
1080
1081
1082
1083
1084
1085
1086
1087
                                                                                                          DDCMP Controller
DDCMP Tributary
                                                                                                           DDCMP DMC compatibility mode (DMP)
                             Line multicast address function code [VMS datalink only].
Destination and physical address function codes too [VMS datalink only].
                       literal NMASC_LINMC_SET = 1;
literal NMASC_LINMC_CLR = 2;
literal NMASC_LINMC_CAL = 3;
                                                                                                           Set address(es)
1088
                                                                                                           (lear address(es)
```

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1090
1091
1092
1093
1094
1095
1096
1097
1100
1101
1102
1103
1104
1105
1106
           000000
                       literal NMASC_LINMC_SDF = 4;
                                                                                                ! Set physical address to DECnet default
                            NI line protocol access mode [VMS datalink only]
                       literal NMASC_ACC_SHR = 1:
literal NMASC_ACC_LIM = 2:
literal NMASC_ACC_EXC = 3:
                                                                                                       Shared access (default protocol user)
                                                                                                       Limited access (point-to-point conn.)
                                                                                                       Exclusive access (allow no others)
                            PCL-11B address mode
                       literal NMASC_LINMO_AUT = 1;
literal NMASC_LINMO_SIL = 2;
                                                                                                 ! Auto address mode
! Silo address mode
                          X.25 line mode
                       literal NMA$C_X25MD_DTE = 1:
literal NMA$C_X25MD_DCE = 2:
literal NMA$C_X25MD_DTL = 3:
literal NMA$C_X25MD_DCL = 4:
                                                                                                       line operates as DTE
                                                                                                 line operates as DCE
line is a DTE in loopback
line is a DCE in loopback
1108
1109
1110
11113
11113
11113
11113
11113
11123
11123
11123
11123
11123
11123
11133
11133
11133
11133
11138
11139
                            Node type values
                       literal NMASC_NODTY_ROU = 0:
literal NMASC_NODTY_NON = 1:
literal NMASC_NODTY_PHA = 2:
literal NMASC_NODTY_AREA = 3:
literal NMASC_NODTY_RT4 = 4:
literal NMASC_NODTY_NR4 = 5:
                                                                                                       Routing Phase III
Nonrouting Phase III
                                                                                                       Phase II
                                                                                                       Area
                                                                                                       Routing Phase IV
                                                                                                       Nonrouting Phase IV
                           Node password values
                                                                                                 ! Password set
                       literal NMASC_NODPW_SET = 0;
                           Node CPU type codes
                       iiteral NMA$C_CPU_8 = 0;
literal NMA$C_CPU_11 = 1;
literal NMA$C_CPU_1020 = 2;
literal NMA$C_CPU_VAX = 3;
                                                                                                       PDP-8 processor
PDP-11 processor
                                                                                                      Decsystem 10/20 processor
                                                                                                      Vax processor
                            Service node version coded values
                       literal NMASC_NODSNV_PH3 = 0:
literal NMASC_NODSNV_PH4 = 1:
                                                                                                 Phase IV
                                                                                                      Phase III
                           Node software type code
                       literal NMA$C SOFT SECL = 0:
literal NMA$C SOFT TERL = 1;
literal NMA$C SOFT OSYS = 2:
literal NMA$C SOFT DIAG = 3;
                                                                                                       Secondary Loader
                                                                                                       Tertiary loader
                                                                                                       Operating system
1140
1141
1142
1143
                                                                                                       Diagnostics
                            Node access (and default access) codes
                       literal NMASC_ACES_NONE = 0:
literal NMASC_ACES_INCO = 1:
literal NMASC_ACES_OUTG = 2:
 1144
                                                                                                       None
 1145
                                                                                                       Incoming
 1146
                                                                                                       Outgoing
```

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                                                                                                                                                                                                                      VAX-11 Bliss-32 V4.0-742 
$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                literal NMASC_ACES_BOTH = 3;
literal NMASC_ACES_REQU = 4;
                                                                                                                                            Both
Required
1147
1148
1149
1150
1151
1152
1153
1154
1155
1156
1157
1158
                                      X.25 Protocol type values
                                literal NMASC_XPRTY_BIL = 1;
                                                                                                                                      ! Bilateral
                                     X.25 protocol state values
                               literal NMASC_XPRST_ON = 0;
literal NMASC_XPRST_OFF = 1;
literal NMASC_XPRST_SHU = 2;
                                                                                                                                             Off
                                                                                                                                             Shut
1160
                                      X.25 protocol multi-network support flag
1161
1162
                               literal NMASC_XPRMN_ENA = 0;
literal NMASC_XPRMN_DIS = 1;
                                                                                                                                             Enabled
                                                                                                                                             Disabled
1164
1165
1166
1167
                                      X.25 protocol DTE substate values
                               literal nmasc_xprsb_run = 12;
literal nmasc_xprsb_uns = 13;
literal nmasc_xprsb_syn = 10;
                                                                                                                                             Running
Unsynchronized
1168
1169
                                                                                                                                             Synchronizing
1170
                                         Months of the Year Codes
1172
                              literal NMASC JAN = 1;
literal NMASC FEB = 2;
literal NMASC MAR = 3;
literal NMASC APR = 4;
literal NMASC JUN = 6;
literal NMASC JUL = 7;
literal NMASC JUL = 7;
literal NMASC AUG = 8;
literal NMASC SEP = 9;
literal NMASC OCT = 10;
literal NMASC NOV = 11;
literal NMASC DEC = 12;
1174
1175
1176
1177
1178
1180
1181
1182
1183
1184
1185
1186
1187
                                      Service device codes (MOP)
                              literal NMASC_SOFD_DP = 0;
literal NMASC_SOFD_UNA = 1;
literal NMASC_SOFD_DU = 2;
literal NMASC_SOFD_DL = 4;
literal NMASC_SOFD_DQ = 6;
literal NMASC_SOFD_DA = 8;
literal NMASC_SOFD_DMC = 12;
literal NMASC_SOFD_DMC = 12;
literal NMASC_SOFD_DMP = 18;
literal NMASC_SOFD_DTE = 20;
literal NMASC_SOFD_DTE = 20;
literal NMASC_SOFD_DTE = 32;
literal NMASC_SOFD_DMV = 34;
literal NMASC_SOFD_DMV = 34;
literal NMASC_SOFD_DMF = 38;
1188
1189
                                                                                                                                             DP11
                                                                                                                                             UNA
1190
1191
1192
1193
                                                                                                                                             DU11
                                                                                                                                             DL11
                                                                                                                                             DQ11
                                                                                                                                             DA11
1194
1195
                                                                                                                                             DUP11
                                                                                                                                             DMC11
1196
1197
                                                                                                                                             DMP11
                                                                                                                                             DTE20
1198
1199
                                                                                                                                             KL8
                                                                                                                                             DMV
 1200
1201
1202
1203
                                                                                                                                              DPV
                                                                                                                                             DMF 32
                                                         Status codes for field support routines
```

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literal NMAS_SUCCESS = 1;
literal NMAS_SUCCFLDRPL = 9;
literal NMAS_BADFID = 0;
literal NMAS_BADDAT = 8;
literal NMAS_BADDPR = 16;
literal NMAS_BUFTOOSMALL = 24;
literal NMAS_FLDNOTFND = 32;
                                                                                                    Unqualified success
Success with field replaced
Invalid field id code
Invalid data format
Invalid operation
                                                                                                     Buffer too small
Field not found
                        Permanent database file ID codes
literal NMASC OPN MIN = 0;
literal NMASC OPN NODE = 0;
literal NMASC OPN LINE = 1;
literal NMASC OPN LOG = 2;
literal NMASC OPN OBJ = 3;
literal NMASC OPN CIR = 4;
literal NMASC OPN X25 = 5;
literal NMASC OPN X29 = 6;
literal NMASC OPN CNF = 7;
literal NMASC OPN MAX = 7;
literal NMASC OPN ALL = 127;
                                                                                                      Minimum !
                                                                                                      Nodes
                                                                                                     Lines
                                                                                                     Logging
Object
                                                                                                      Circuit
                                                                                            Module X25
Module X29
Module Configurator
Maximum ! permanent database files
All opened files
                       Open access codes
 literal NMA$C_OPN_AC_RO = 0;
literal NMA$C_OPN_AC_RW = 1;
                                                                                                   Read Only
Read write
                        Define Phase II NICE function codes
literal NMASC_FN2_DLL = 2;
literal NMASC_FN2_ULD = 3;
literal NMASC_FN2_TRI = 4;
literal NMASC_FN2_LOO = 5;
literal NMASC_FN2_TES = 6;
literal NMASC_FN2_SET = 7;
literal NMASC_FN2_REA = 8;
literal NMASC_FN2_REA = 8;
literal NMASC_FN2_ZER = 9;
literal NMASC_FN2_LNS = 14;
                                                                                                     Down line load
                                                                                                     Upline Dump
                                                                                                     Trigger remote bootstrap
                                                                                                    Loop back test
Send test message to be looped
                                                                                                     Set parameter
                                                                                                     Read Parameter
                                                                                                     Zero counters
                                                                                                     Line service
                        Change parameters (volatile only)
literal NMA$C_OP2_CHNST = 5:
literal NMA$C_OP2_CHLST = 8:
                                                                       Node operational status
Line operational status
                        Read Information (Status and Counters only)
 literal NMA$C OP2 RENCT = 0:
literal NMA$C OP2 RENST = 1:
literal NMA$C OP2 RELCT = 4:
literal NMA$C OP2 RELST = 5:
                                                                                                     Local node counters
                                                                                                     local node status
                                                                                                    Line counters
                                                                                              Line status
                         Zero counters
 literal NMASC_OP2_ZENCT = 0:
literal NMASC_OP2_ZELCT = 2:
                                                                     Local Node counters
Line counters
```

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Line entity codes
literal NMA$C_EN2_KNO = 0:
literal NMA$C_EN2_LID = 1:
literal NMA$C_EN2_LCN = 2;
                                                                                                                                                                                                                                                  Known lines
Line id
                                                                                                                                                                                                                                               Line convenience name
                                                                   NML Return codes
                                                     literal NMA$C_STS_SUC = 1:
literal NMA$C_STS_MOR = 2:
literal NMA$C_STS_PAR = 3;
                                                                                                                                                                                                                                                      Success
                                                                                                                                                                                                                                                      Request accepted, more to come
Partial reply
                                                       literal NMASC_STS_DON = -128:
                                                                                                                                                                                                                                                      Done
                                                   literal NMASC_STS_DON = -128;
literal NMASC_STS_FUN = -1;
literal NMASC_STS_INV = -2;
literal NMASC_STS_PRI = -3;
literal NMASC_STS_PRI = -3;
literal NMASC_STS_SIZ = -4;
literal NMASC_STS_MPR = -5;
literal NMASC_STS_MPR = -5;
literal NMASC_STS_MVE = -7;
literal NMASC_STS_CMP = -8;
literal NMASC_STS_CMP = -8;
literal NMASC_STS_LCO = -10;
literal NMASC_STS_LCO = -10;
literal NMASC_STS_FOP = -13;
literal NMASC_STS_FOP = -13;
literal NMASC_STS_FOP = -13;
literal NMASC_STS_FOP = -14;
literal NMASC_STS_PVA = -16;
literal NMASC_STS_PVA = -16;
literal NMASC_STS_PVA = -16;
literal NMASC_STS_PVA = -21;
literal NMASC_STS_PVA = -22;
literal NMASC_STS_POP = -23;
literal NMASC_STS_POP = -23;
literal NMASC_STS_POP = -23;
literal NMASC_STS_POP = -24;
literal NMASC_STS_POP = -25;
literal NMASC_STS_POP = -27;
literal NMASC_STS_POP = -27;
literal NMASC_STS_PMS = -28;
literal NMASC_STS_PMS = -29;
literal NMASC_STS_PMS = -29;
                                                                                                                                                                                                                                                    Unrecognized function or option
Invalid message format
Privilege violation
Oversized management command message
Network management program error
Unrecognized parameter type
Incompatible management version
Unrecognised component
Invalid identification format
                                                                                                                                                                                                                                                      Line communication error Component in wrong state
                                                                                                                                                                                                                                                      file open error
Invalid file contents
                                                                                                                                                                                                                                                    Invalid file contents
Resource error
Invalid parameter value
Line protocol error
File i/o error
Mirror link disconnected
No room for new entry
Mirror connect failed
Parameter not applicable
Parameter value too long
Hardware failure
Operation failure
System-specific management
                                                                                                                                                                                                                                                     Invalid parameter grouping
Bad loopback response
Parameter missing
                                                     literal NMA$C_STS_ALI = -127;
literal NMA$C_STS_OBJ = -126;
literal NMA$C_STS_PRO = -125;
literal NMA$C_STS_LNK = -124;
                                                                                                                                                                                                                                                     Invalid alias identification 
Invalid object identification 
Invalid process identification 
Invalid link identification
                                                                                                 Error details
                                                                                                  STS_FOP and STS_FIO
                                                     literal NMA$C_FOPDTL_PDB = 0;
literal NMA$C_FOPDTL_LFL = 1;
literal NMA$C_FOPDTL_DFL = 2;
                                                                                                                                                                                                                                                      Permanent database
                                                                                                                                                                                                                                                     Load file
Dump file
```

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M 8
15-Sep-1984 23:06:17
15-Sep-1984 22:49:02
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               VAX-11 Bliss-32 V4.0-742
_$255$DUA28:[NCP.OBJ]NMADEF.R32;1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 25 (1)
                                                                       literal NMA$C_FOPDTL_SLF = 3:
literal NMA$C_FOPDTL_TLF = 4:
literal NMA$C_FOPDTL_SDF = 5:
                                                                                                                                                                                                                                                                                                                                     Secondary loader
Tertiary loader
Secondary dumper
                                                                                                                                   STS_MLD, STS_MCF
                                                                    literal NMASC NCEDTL NNA = 0;
literal NMASC NCEDTL INN = 1;
literal NMASC NCEDTL UNA = 2;
literal NMASC NCEDTL UNR = 3;
literal NMASC NCEDTL RSC = 4;
literal NMASC NCEDTL RJC = 5;
literal NMASC NCEDTL ONA = 6;
literal NMASC NCEDTL OBJ = 7;
literal NMASC NCEDTL ACC = 8;
literal NMASC NCEDTL BSY = 9;
literal NMASC NCEDTL NRS = 10;
literal NMASC NCEDTL NRS = 10;
literal NMASC NCEDTL DIE = 12;
literal NMASC NCEDTL DIE = 12;
literal NMASC NCEDTL DIS = 13;
literal NMASC NCEDTL ABO = 14;
literal NMASC NCEDTL ABO = 14;
literal NMASC NCEDTL ABO = 15;
                                                                                                                                                                                                                                                                                                                                     No node name set
Invalid node name format
                                                                                                                                                                                                                                                                                                                                     Unrecognised node name
Node unreachable
                                                                                                                                                                                                                                                                                                                                    Network resources
Rejected by object
Invalid object name format
Unrecognised object
                                                                                                                                                                                                                                                                                                                                   Access control rejected
Object too busy
No response from object
Node shut down
Node or object failed
                                                                                                                                                                                                                                                                                                                                     Disconnect by object
                                                                                                                                                                                                                                                                                                                                     Abort by object
Abort by management
                                                                                                                                  STS_OPE
                                                                  literal NMA$C_OPEDTL_DCH = 0;

literal NMA$C_OPEDTL_TIM = 1;

literal NMA$C_OPEDTL_ORN = 2;

literal NMA$C_OPEDTL_ACT = 3;

literal NMA$C_OPEDTL_BAF = 4;

literal NMA$C_OPEDTL_RUN = 5;

literal NMA$C_OPEDTL_DSC = 6;

literal NMA$C_OPEDTL_FTL = 8;

literal NMA$C_OPEDTL_MNT = 11;

literal NMA$C_OPEDTL_LST = 12;

literal NMA$C_OPEDTL_THR = 13;

literal NMA$C_OPEDTL_TRB = 14;

literal NMA$C_OPEDTL_TRB = 14;

literal NMA$C_OPEDTL_STA = 15;

litera
                                                                                                                                                                                                                                                                                                                                                                   Data check
                                                                                                                                                                                                                                                                                                                                                                   Timeout
                                                                                                                                                                                                                                                                                                                                                                 Data overrun
Unit is active
Buffer allocation failure
                                                                                                                                                                                                                                                                                                                                                                  Protocol running
Line disconnected
                                                                                                                                                                                                                                                                                                                                                                   Fatal hardware error
                                                                                                                                                                                                                                                                                                                                                                 DDCMP maintainance message received
Data lost due to buffer size mismatch
Threshold error
                                                                                                                                                                                                                                                                                                                                                                   Tributary malfunction
                                                                                                                                                                                                                                                                                                                                                                  DDCMP start message received
                                                                                                                                                                                                                                                                                                                                      transmit underrun
                                                                                                                                                                                                                                                                                                                                     receive underrun
                                                                                                                                                                                                                                                                                                                                    FRMR received
                                                                                        VMS-specific line counters
```

N 8 15-Sep-1984 23:06:17 15-Sep-1984 22:48:13 VAX-11 Bliss-32 V4.0-742 \$255\$DUA28:[NCP.SRC]NMATAIL.B32;1 1363 1364 1366 1366 1368 1369 1371 1376 1376 1377 1378 1381 1381 Version: 'V04-000' NMATAIL.B32 Source to undeclare the macros required for the precompile of NMALIBRY.B32 so they do not appear in the library. UNDECLARE XQUOTE SEQUEST,
XQUOTE GET1ST.,
XQUOTE GET2ND.,
XQUOTE NUL2ND. End of NMATAIL.B32

## COMMAND QUALIFIERS

BLISS/LIB=LIB\$:NMALIBRY/LIS=LIS\$:NMALIBRY SRC\$:NMAHEAD+LIB\$:NMADEF+SRC\$:NMATAIL

Run Time: 00:13.1; Elapsed Time: 00:21.7; Lines/CPU Min: 6324; LexeMes/CPU-Min: 26508; Memory Used: 147 pages; Library Precompilation Complete

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0272 AH-BT13A-SE VAX/VMS V4.0

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